



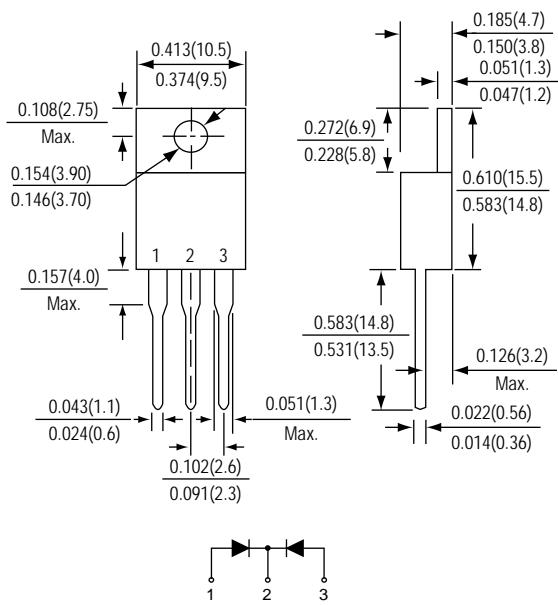
# SBL1040CT THRU SBL1060CT

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 to 60 Volts

Forward Current - 10 Amperes

### TO-220AB



\*Dimensions in inches and (millimeters)



### FEATURES

- \* Lead free product
- \* Low forward voltage drop
- \* High current capacity
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction
- \* Plastic Material-UL Recognition Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC TO-220AB molded plastic body

**Terminals :** Plated Leads, solderable per MIL-STD-750, Method 2026

**Polarity :** Molded on body

**Mounting Position :** Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	SBL1040CT	SBL1045CT	SBL1060CT	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40	45	60	Volts
Maximum RMS voltage	V <sub>RMS</sub>	28	31.5	42	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	40	45	60	Volts
Maximum average forward rectified current at T <sub>c</sub> = 75 °C	I <sub>(AV)</sub>		10		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>		150		Amps
Maximum instantaneous forward voltage I <sub>F</sub> = @ 5 A	V <sub>F</sub>	0.55		0.70	Volts
Maximum DC reverse current @ T <sub>c</sub> =25 °C at rated DC blocking voltage @ T <sub>c</sub> =125 °C	I <sub>R</sub>	0.2 50			mA
Typical junction capacitance (Note 1)	C <sub>J</sub>	250			pF
Typical thermal resistance (Note 2)	R <sub>JC</sub>	3.2			/ W
Operating junction and storage temperature range	T <sub>J,TSTG</sub>	-55 to +150			°C

Note : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V.

2. Thermal resistance junction to case.

# RATINGS AND CHARACTERISTIC CURVES SBL1040CT THRU SBL1060CT

FIG.1 - FORWARD CURRENT DERATING CURVE

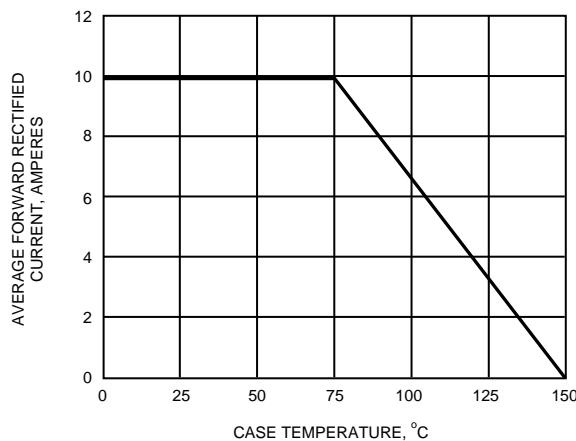


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

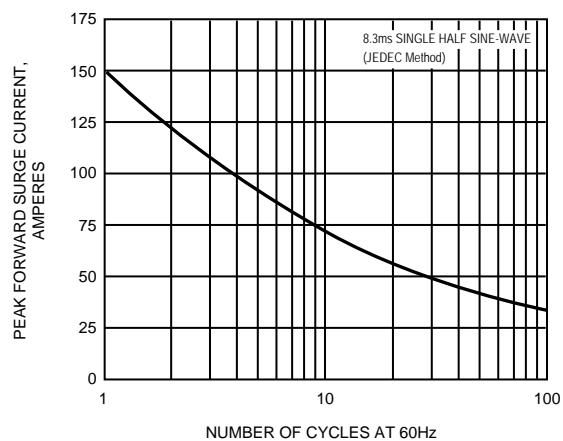


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

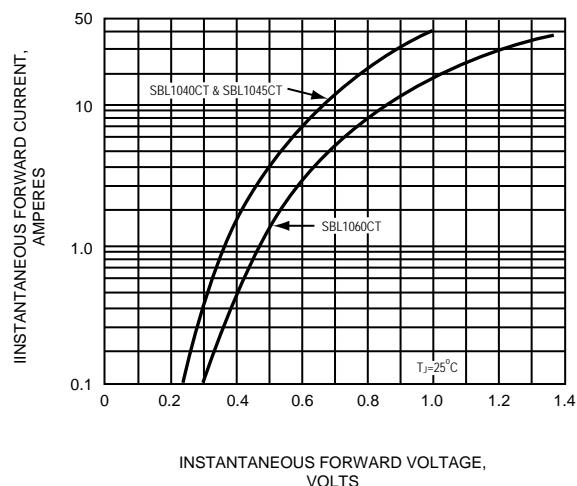


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

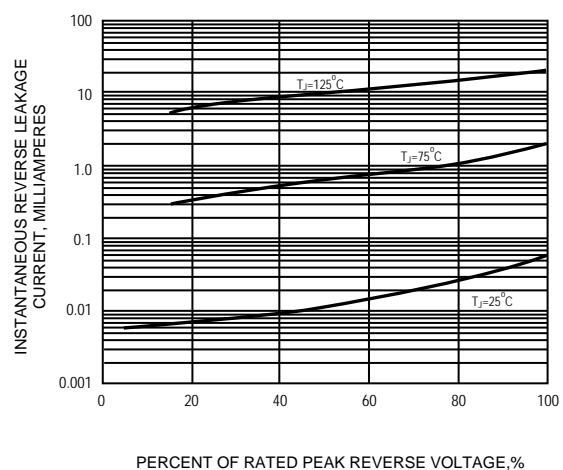


FIG.5 - TYPICAL JUNCTION CAPACITANCE

